

What is claimed is:

1. A dental device for exposing teeth to electromagnetic radiation comprising:
a carrier constructed to be applied to at least one tooth; and
at least one light source attached to the carrier and oriented to emit electromagnetic radiation from the light source toward a tooth surface.
2. The dental device of claim 1, further comprising a power supply operably connected to the at least one light source, the power supply providing energy to the light source.
3. The dental device of claim 1, wherein the carrier is a dental tray.
4. The dental device of claim 1, wherein the carrier is a dental tape.
5. The dental device of claim 1, wherein the at least one light source is a light emitting diode.
6. The dental device of claim 1, wherein the light source is an optical fiber panel.
7. The dental device of claim 1, wherein the light source is an electrochemiluminescent material.
8. The dental device of claim 1, further comprising an optical fiber bundle operably connected with the light source so that optical energy may be transmitted from the optical fiber bundle to the light source.
9. The dental device of claim 1, further comprising a circuit for varying at least one of an intensity, distribution and duration of electromagnetic radiation emitted from the light source.
10. The dental device of claim 1, further comprising a transparent panel disposed over the light source.

11. The dental device of claim 1, further comprising a reflective panel disposed between the light source and the carrier.
12. The dental device of claim 1, further comprising a diffuser panel disposed over the light source.
13. A dental device for exposing teeth of a subject to electromagnetic radiation, comprising:
a dental tray structured to fit over teeth of the subject; and
at least one optical fiber configured to provide electromagnetic radiation to at least one tooth, the at least one optical fiber being disposed on or within the dental tray so that the electromagnetic radiation is directed toward at least one tooth of the subject.
14. The dental device of claim 13, wherein the at least one optical fiber comprises a plurality of optical fibers defining an optical fiber panel.
15. The dental device of claim 13, the at least one optical fiber comprising a plurality of optical fibers and the dental device further comprising a power source in communication with the plurality of optical fibers, the power source providing power to the plurality of optical fibers.
16. The dental device of claim 13, the at least one optical fiber comprising a plurality of optical fibers and the dental device further comprising a circuit for varying at least one of an intensity, distribution and duration of electromagnetic radiation emitted from the plurality of optical fibers.
17. The dental device of claim 13, further comprising a reflective panel disposed between the at least one optical fiber and the dental tray.
18. The dental device of claim 13, further comprising a diffuser panel disposed over the at least one optical fiber.

19. A method for exposing teeth to electromagnetic radiation, the method comprising the following steps:
 - (a) providing a dental device, which comprises a carrier and at least one optical fiber disposed on or within the carrier;
 - (b) applying a dentifrice;
 - (c) applying the dental device to a subject's teeth; and
 - (d) activating a source of electromagnetic energy so that electromagnetic radiation is emitted from the at least one optical fiber in a direction toward the dentifrice.
20. The method of claim 19, wherein:
the step of applying a dentifrice comprises a step of applying a dentifrice containing an agent having at least one of cleaning, sterilizing and whitening properties;
and
the step of activating a source of electromagnetic energy comprises a step of activating a source of electromagnetic energy so that electromagnetic radiation is emitted from the at least one optical fiber in a direction toward the subject's teeth.
21. The method of claim 20, and further comprising a step of the agent being at least partially activated by the electromagnetic radiation emitted from the at least one optical fiber.
22. The method of claim 19, wherein the carrier is a dental tray.
23. The method of claim 19, wherein the step of applying a dentifrice comprises a step of applying a dentifrice to the dental device.
24. The method of claim 19, wherein the step of applying a dentifrice comprises a step of applying a dentifrice to a subject's teeth.
25. The method of claim 19, wherein the at least one optical fiber comprises a plurality of optical fibers.

26. The method of claim 19, wherein the dentifrice comprises a peroxy compound and a fluoride.
27. The method of claim 19, wherein the dentifrice comprises an anti-carries agent.
28. The method of claim 19, wherein the dentifrice comprises a peroxy compound, an oxidoreductase agent, an antibacterial agent, an anti-carries agent, an anti-plaque agent or plaque control activator, an anti-tartar agent, a desensitizing agent, an etching agent, a photosensitizer or photodynamic therapy photosensitizer, and a whitening agent.